TITLE

INCREASING CAROTENOID PRODUCTION IN BACTERIA VIA CHROMOSOMAL INTEGRATION ABSTRACT

The present invention relates to carotenoid overproducing bacteria. The genes of the isoprenoid pathway in the bacterial hosts of the invention have been engineered such that certain genes are either up-regulated or down regulated resulting in the production of carotenoid compounds at a higher level than is found in the un-modified host. Genes that may be up-regulated include the *dxs*, *idi*, *ispB*, *lytB* and *ygbBP* genes. Additionally it has been found that a partial disruption of the *yjeR* gene has the effect of enhancing carotenoid production.

SNF/dmm